

WHAT IS CLAIMED IS:

1 1. A method of detecting a cancer cell in a patient, the method
2 comprising contacting a biological sample from the patient with a polynucleotide that
3 selectively hybridizes to a chemokine receptor polynucleotide.

1 2. The method of claim 1, wherein the chemokine receptor is CXCR4 and
2 the biological sample is designed for the detection of ovarian cancer cells, bladder cancer
3 cells, lung cancer cells, head and neck cancer cells, renal cancer cells, stomach cancer cells,
4 uterine cancer cells, colorectal cancer cells, acute lymphoblastic leukemia cells, prostate
5 cancer cells, pancreatic cancer cells, or cervical cancer cells.

1 3. The method of claim 1, wherein the chemokine receptor is CCR2 and
2 the biological sample is designed for the detection of glioblastoma cancer cells.

1 4. The method of claim 1, wherein the chemokine receptor is CCR1 and
2 the biological sample is designed for the detection of glioblastoma, or pancreatic cancer cells.

1 5. The method of claim 1, wherein the chemokine receptor is CCR4 and
2 the biological sample is designed for the detection of ovarian cancer cells, head and neck
3 cancer cells, renal cancer cells, stomach cancer cells, uterine cancer cells, glioblastoma or
4 colorectal cancer cells.

1 6. The method of claim 1, wherein the chemokine receptor is CCR5 and
2 the biological sample is designed for the detection of prostate cancer cells, head and neck
3 cancer cells, renal cancer cells, stomach cancer cells, uterine cancer cells, colorectal cancer
4 cells, pancreatic cancer cells, or ovarian cancer cells.

1 7. The method of claim 1, wherein the chemokine receptor is CCR7 and
2 the biological sample is designed for the detection of renal cancer cells, pancreatic cancer
3 cells, or stomach cancer cells.

1 8. The method of claim 1, wherein the chemokine receptor is CCR8 and
2 the biological sample is designed for the detection of glioblastoma or prostate cancer cells.

1 9. The method of claim 1, wherein the chemokine receptor is CX3CR1
2 and the biological sample is designed for the detection of glioblastoma or pancreatic cancer
3 cells.

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1 10. The method of claim 1, wherein the chemokine receptor is CXCR3 and
2 the biological sample is designed for the detection of glioblastoma cells.

1 11. The method of claim 1, wherein the chemokine receptor is CXCR6 and
2 the biological sample is designed for the detection of lung cancer cells, bladder cancer cells,
3 prostate cancer cells, breast cancer cells, pancreatic cancer cells, or colorectal cancer cells.

1 12. The method of claim 1, wherein the patient is undergoing a therapeutic
2 regimen to treat cancer.

1 13. The method of claim 1, wherein the patient is suspected of having
2 cancer.

1 14. A method of detecting a cancer cell in a biological sample from a
2 patient, the method comprising contacting the biological sample with an anti-chemokine
3 receptor antibody or a chemokine.

1 15. The method of claim 14, wherein the chemokine receptor is CXCR4
2 and the biological sample is designed for the detection of ovarian cancer cells, bladder cancer
3 cells, lung cancer cells, head and neck cancer cells, renal cancer cells, stomach cancer cells,
4 uterine cancer cells, colorectal cancer cells, acute lymphoblastic leukemia cells, prostate
5 cancer cells, pancreatic cancer cells, or cervical cancer cells.

1 16. The method of claim 14, wherein the chemokine receptor is CCR2 and
2 the biological sample is designed for the detection of glioblastoma cancer cells.

1 17. The method of claim 14, wherein the chemokine receptor is CCR1 and
2 the biological sample is designed for the detection of glioblastoma or pancreatic cancer cells.

1 18. The method of claim 14, wherein the chemokine receptor is CCR4 and
2 the biological sample is designed for the detection of ovarian cancer cells, head and neck
3 cancer cells, renal cancer cells, stomach cancer cells, uterine cancer cells, glioblastoma, or
4 colorectal cancer cells.

1 19. The method of claim 14, wherein the chemokine receptor is CCR5 and
2 the biological sample is designed for the detection of prostate cancer cells, head and neck

3 cancer cells, renal cancer cells, stomach cancer cells, uterine cancer cells, colon cancer cells,
4 pancreatic cancer cells, or ovarian cancer cells.

1 20. The method of claim 14, wherein the chemokine receptor is CCR7 and
2 the biological sample is designed for the detection of renal cancer cells, pancreatic cancer
3 cells, or stomach cancer cells.

1 21. The method of claim 14, wherein the chemokine receptor is CCR8 and
2 the biological sample is designed for the detection of glioblastoma, or prostate cancer cells.

1 22. The method of claim 14, wherein the chemokine receptor is CX3CR1
2 and the biological sample is designed for the detection of glioblastoma or pancreatic cancer
3 cells.

1 23. The method of claim 14, wherein the chemokine receptor is CXCR3
2 and the biological sample is designed for the detection of glioblastoma cells.

1 24. The method of claim 14, wherein the chemokine receptor is CXCR6
2 and the biological sample is designed for the detection of lung cancer cells, bladder cancer
3 cells, prostate cancer cells, breast cancer cells, pancreatic cancer cells, or colorectal cancer
4 cells.

1 25. The method of claim 14, wherein the patient is undergoing a
2 therapeutic regimen to treat cancer.

1 26. The method of claim 14, wherein the patient is suspected of having
2 cancer.